



Weeks 2-3 Global Tropics Hazards Outlook

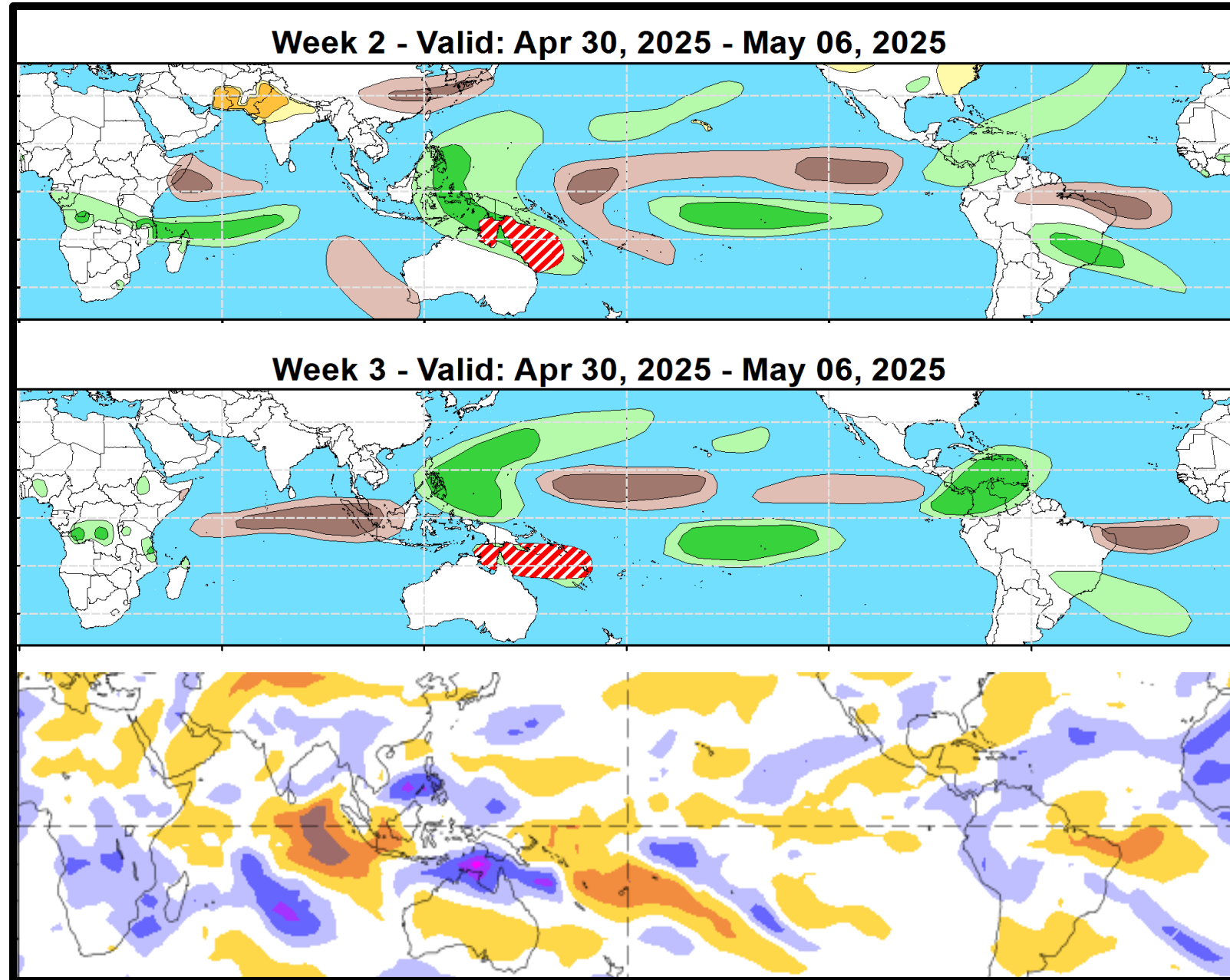
5/6/2025

Nick Novella

NWS / NCEP / Climate Prediction Center

Outlook Review: TC development & anomalous precipitation during the past week

- No TC formed in the last week
- No TCs have formed since Apr 17



Synopsis of Climate Modes:

ENSO: (Apr 10, 2025 Update) *next update on Thursday, May 8th*

- ENSO Alert System Status: [Final La Niña Advisory](#)
- ENSO-neutral is favored during the Northern Hemisphere summer, with a greater than 50% chance through August-October 2025.

MJO and other subseasonal tropical variability:

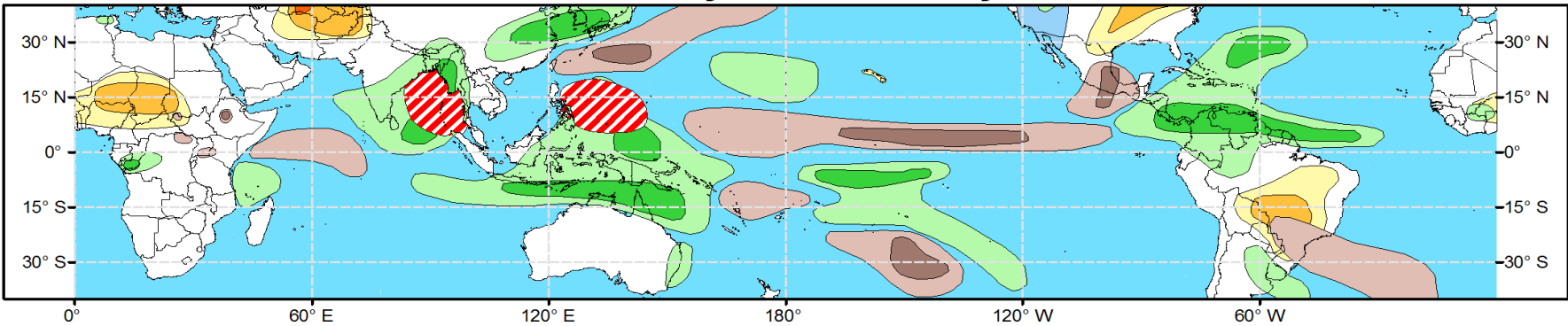
- Despite some renewed eastward propagation of the MJO signal in the RMM observations, the global tropics continues to depict a disorganized pattern, with other modes of variability remaining at play.
- Equatorial Kelvin wave activity has and looks to be predominate mode of variability for much of this spring.
- RMM and upper-level velocity potential forecasts are unsupportive of a more coherent MJO reemerging during the next 3 weeks, which combined with ENSO-neutral conditions, leads to added uncertainty in the outlook.
- Dynamical models maintain low odds for tropical cyclogenesis in the eastern Hemisphere, with growing support for development in the western Hemisphere heading into the start of the Eastern Pacific Hurricane Season.



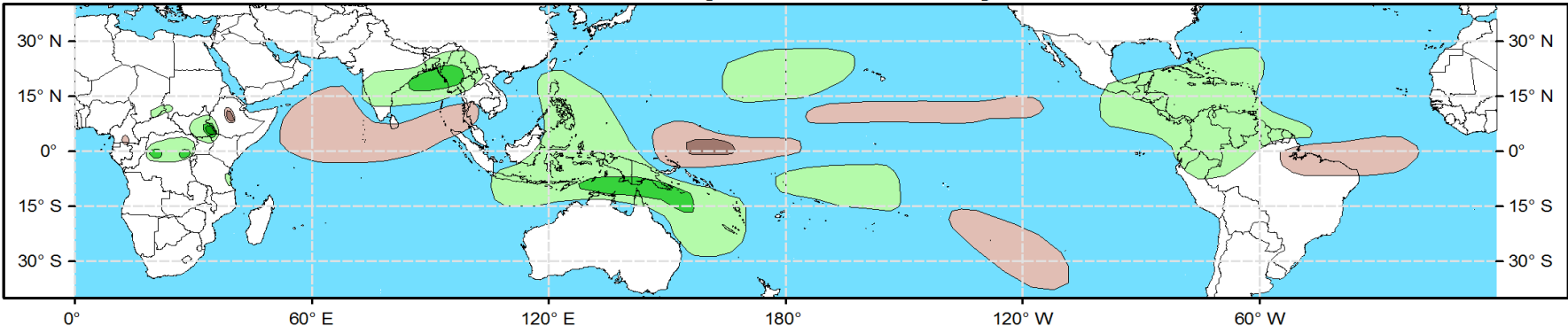
Global Tropics Hazards Outlook Climate Prediction Center



Week 2 - Valid: May 14, 2025 - May 20, 2025



Week 3 - Valid: May 21, 2025 - May 27, 2025



**Tropical Cyclone (TC)
Formation Probability**



>20% >40% >60%

*Tropical Depression (TD)
or greater strength*

**Above-Average
Rainfall Probability**



>50% >65% >80%

*Weekly total rainfall in the
Upper third of the historical range*

**Below-Average
Rainfall Probability**



>50% >65% >80%

*Weekly total rainfall in the
Lower third of the historical range*

**Above-Average
Temperatures Probability**



>50% >65% >80%

*7-day max temperatures in the
Upper third of the historical range*

**Below-Average
Temperatures Probability**



>50% >65% >80%

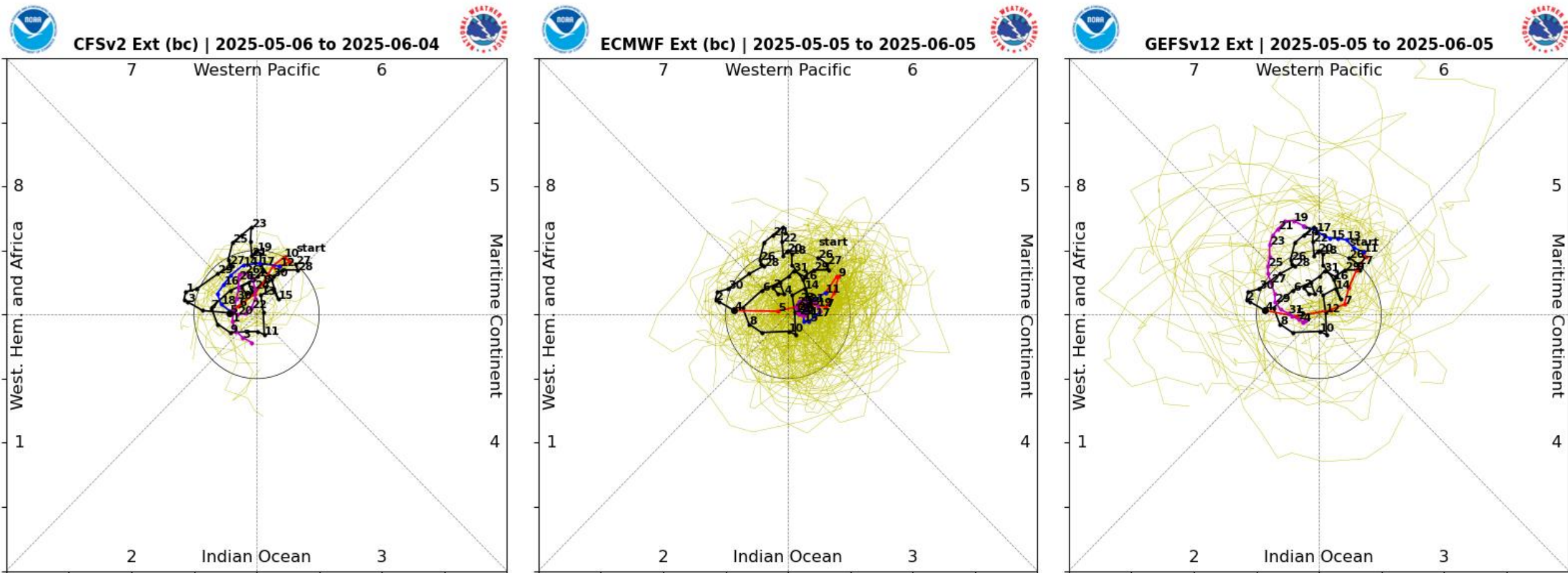
*7-day min temperatures in the
Lower third of the historical range*

Issued: 05/06/2025

Forecaster: Novella

**This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only.
Consult your local responsible forecast agency.**

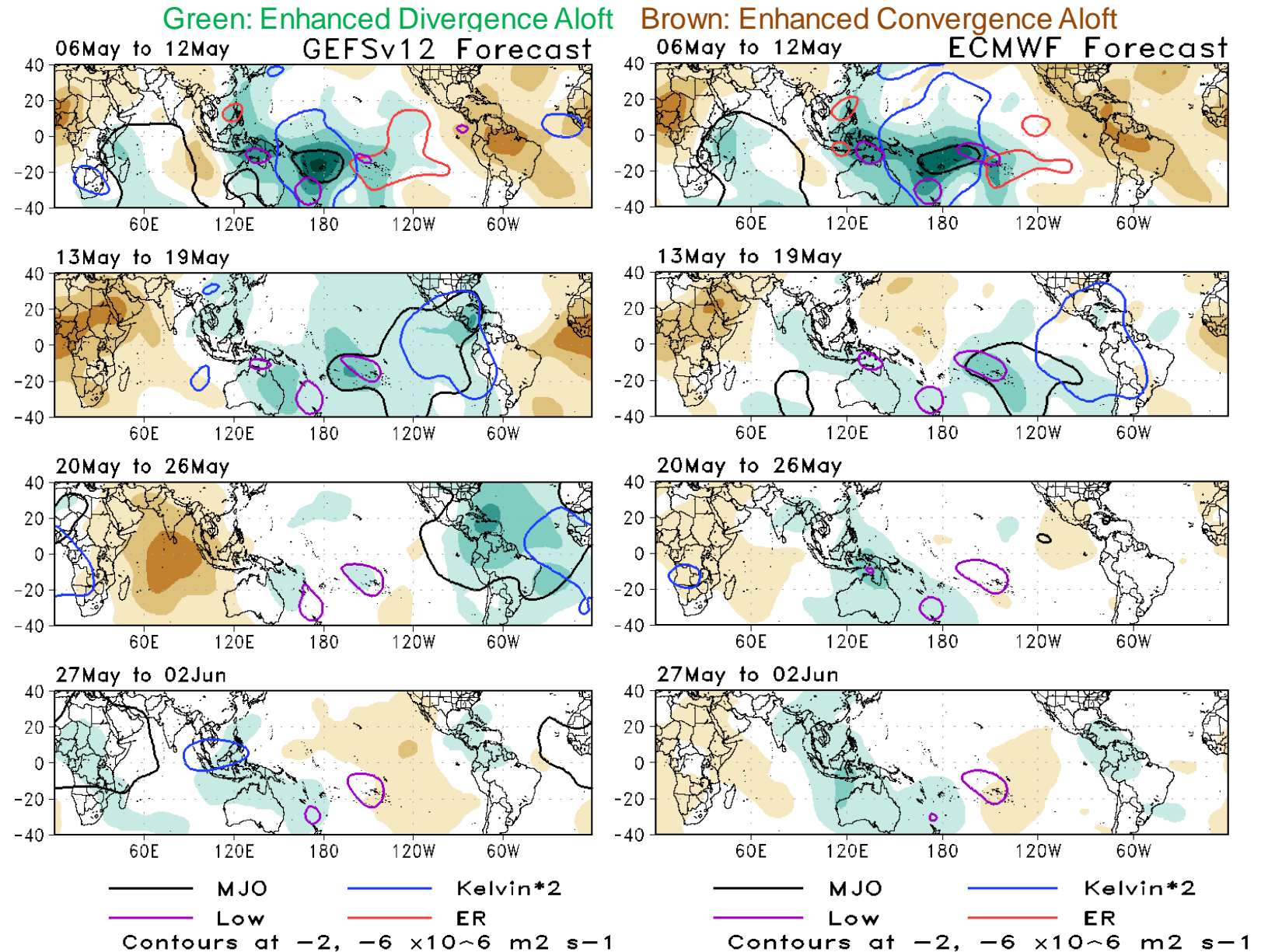
RMM Index Observations & Forecasts:



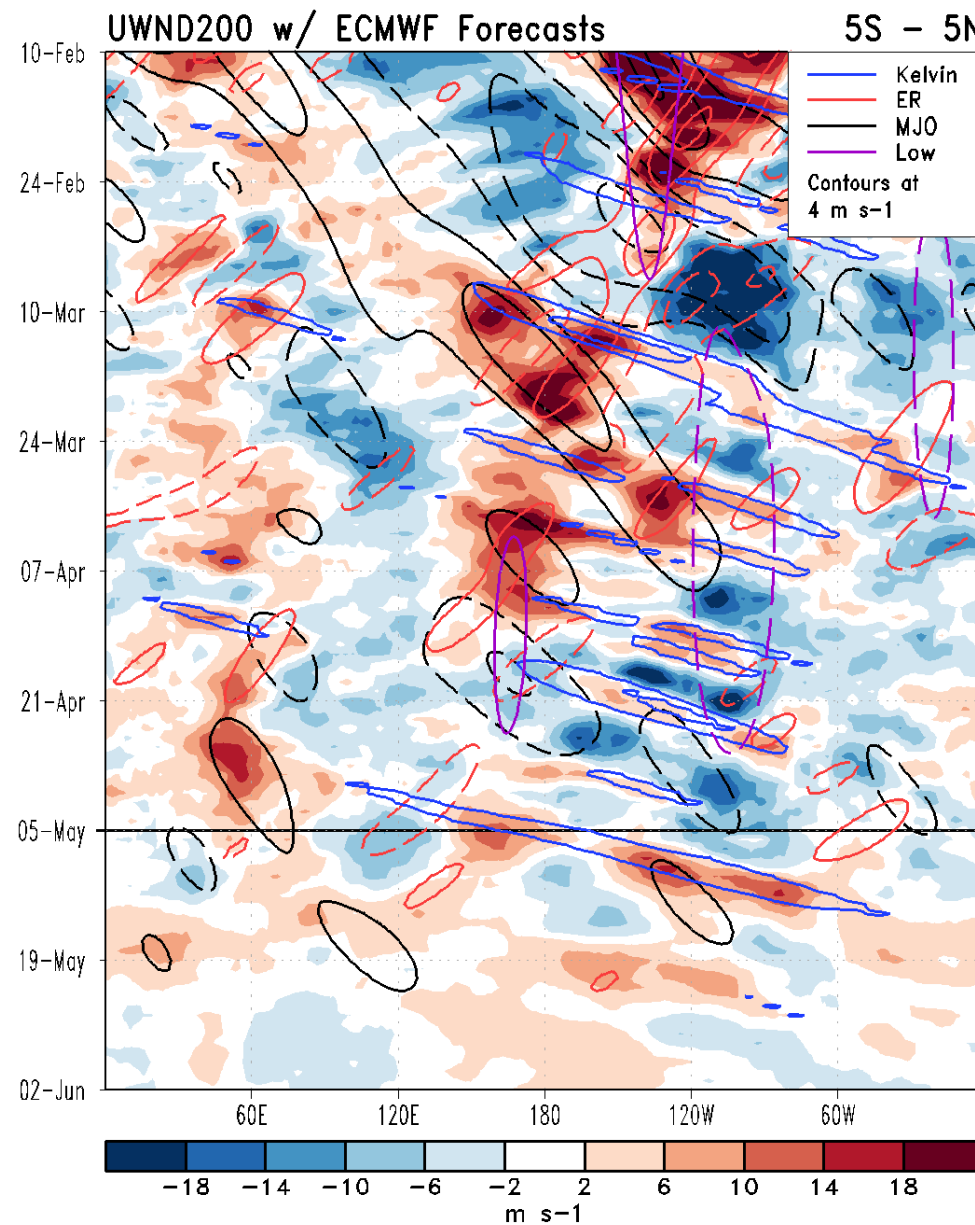
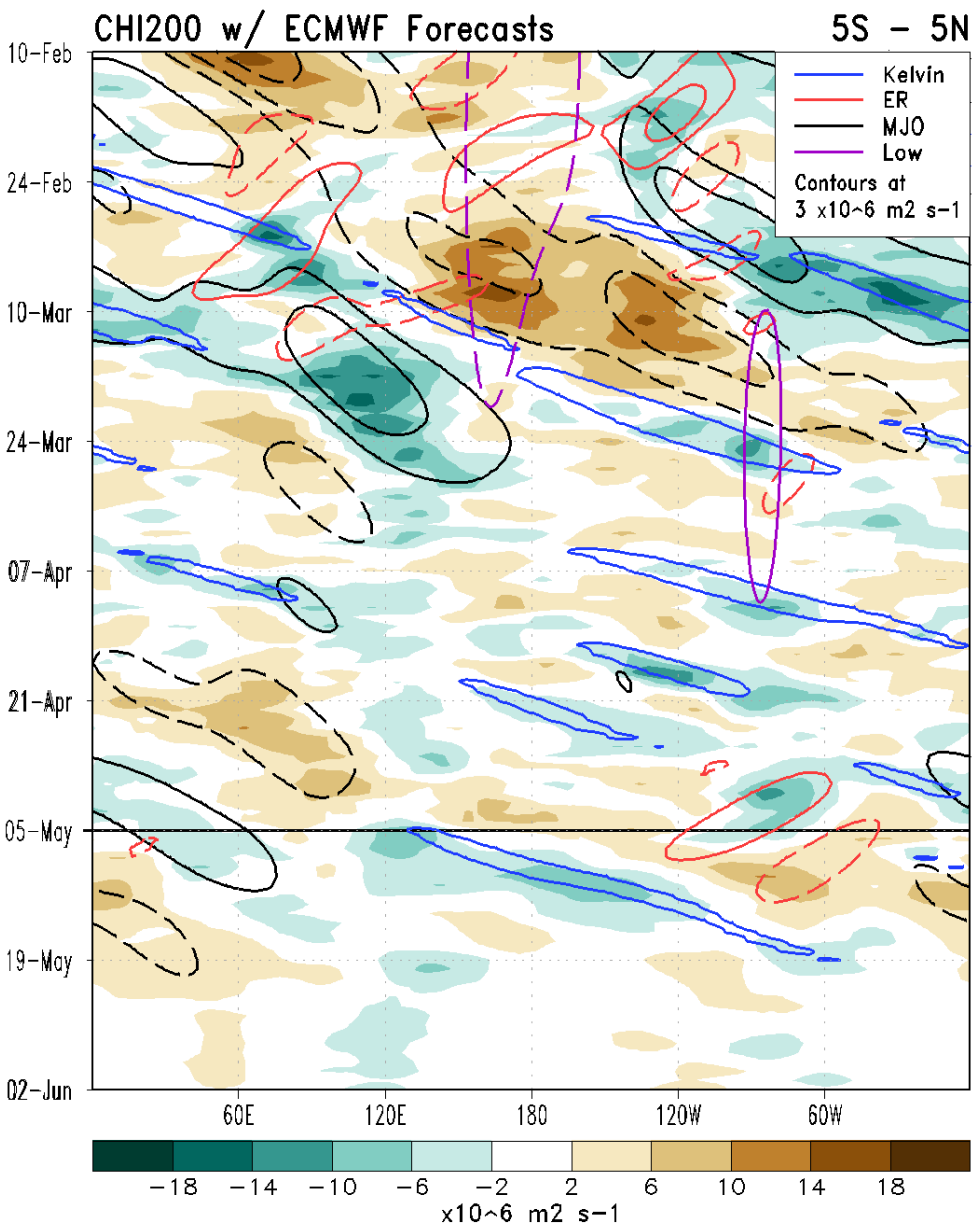
- Dynamical models are in good agreement on short-term, favoring a signal that quickly returns to the Maritime Continent in a short-span. This behavior is likely more related to convectively coupled Kelvin Wave activity than a canonical MJO.
- During weeks 2 and 3, CFS and ECMWF favor a weak and incoherent signal, with the GEFS suggesting a more organized event could unfold.

200-hPa Velocity Potential Anomaly Maps:

- The GEFS maintains more **MJO activity** coming through the filtering than the ECWMF.
- Both favor a continuation of **Kelvin wave** activity through the next two weeks, while the anomaly pattern weakens considerably by late May.
- **Rossby wave** activity over the western Pacific is expected to bring more favorable upper-level conditions for enhanced precipitation and tropical cyclone development in the northeastern Indian Ocean during week-2

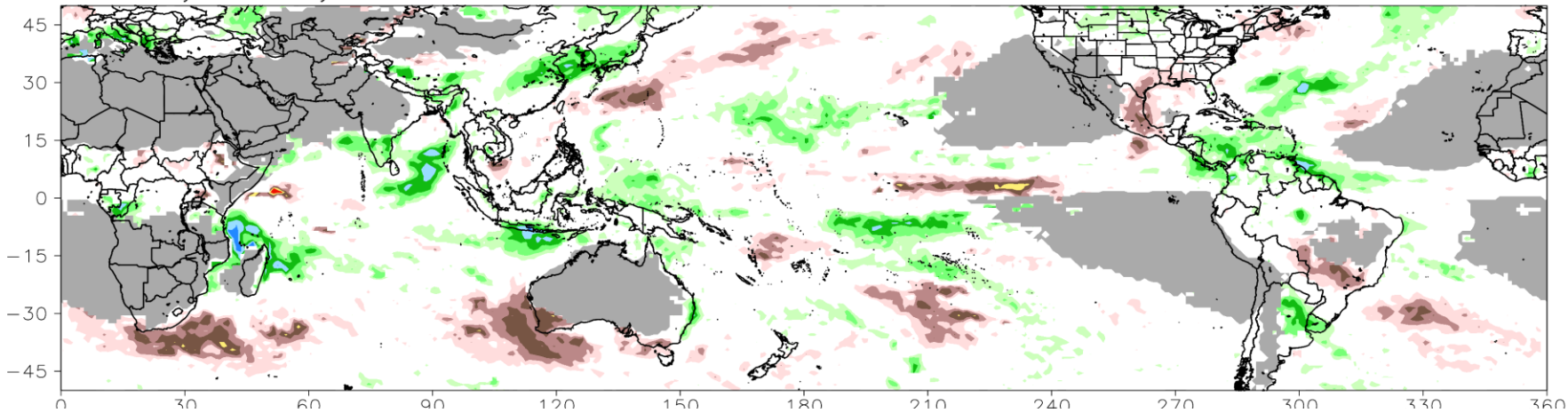


Velocity Potential and u200 Anomaly Time/Lon Plots:

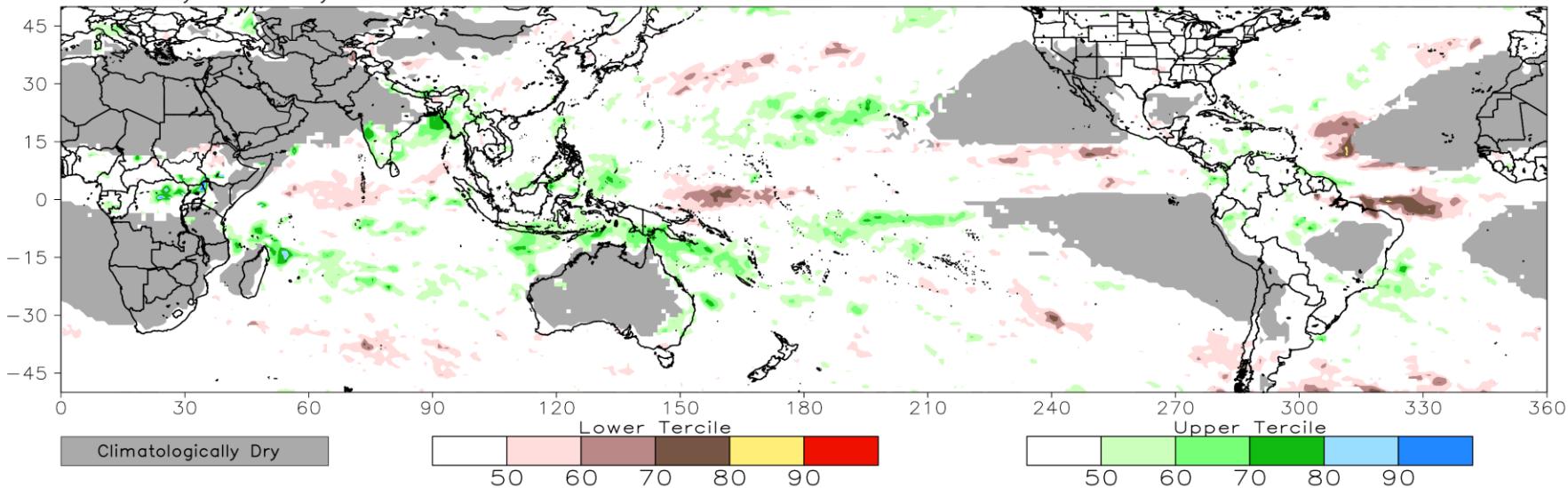


Consolidated Probabilistic Precipitation: Weeks 2 & 3

CONS (CFS+ECMWF+GEFS): Week2 Probability for Total Rainfall Below(Above) Lower(Upper) Tercile (%)
Valid: 14May2025–20May2025



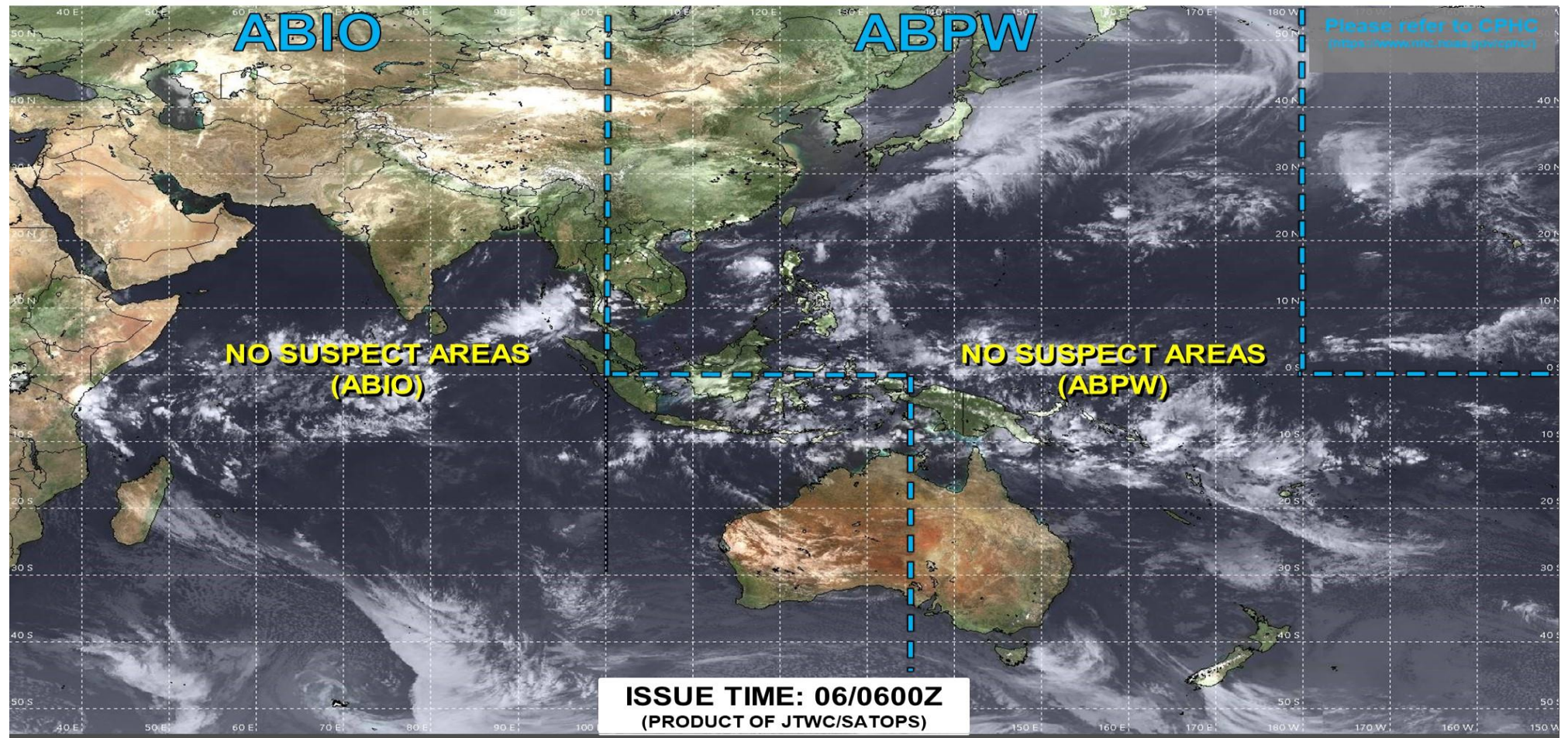
CONS (CFS+ECMWF+GEFS): Week3 Probability for Total Rainfall Below(Above) Lower(Upper) Tercile (%)
Valid: 21May2025–27May2025



Tropical Cyclone Monitoring/Forecast: JTWC



JOINT TYPHOON WARNING CENTER



LOW

TC development unlikely within 24 hours

MEDIUM

TC development likely, but expected to occur beyond 24 hours

HIGH

TC development likely within 24 hours (Reference TCFA)

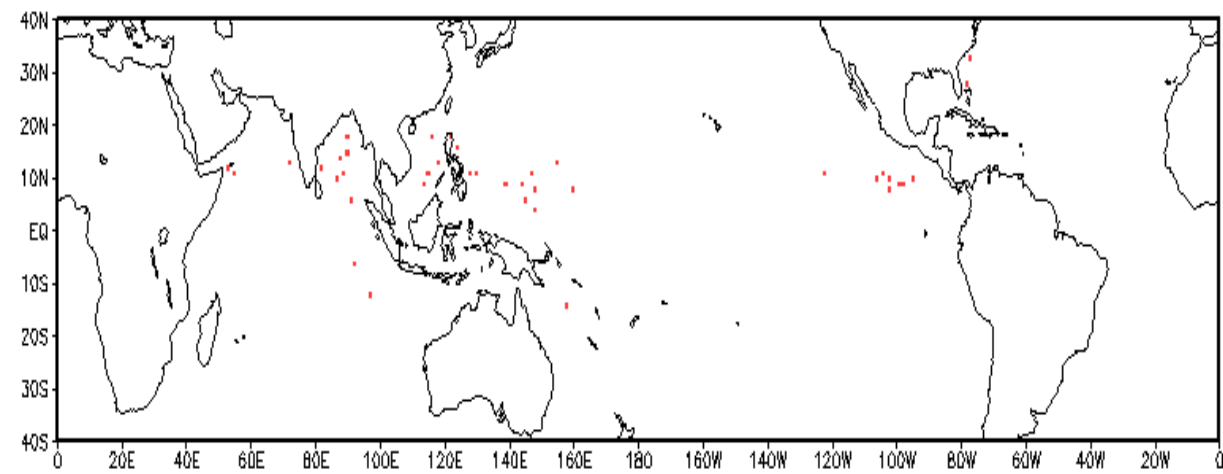
SUB TROPICAL

Monitoring for potential transition to TC. Invest label color denotes tropical transition probability

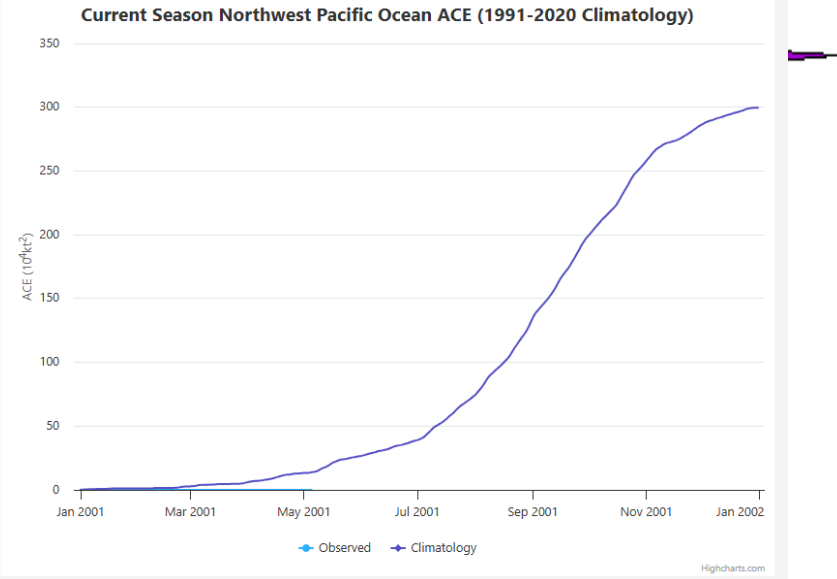
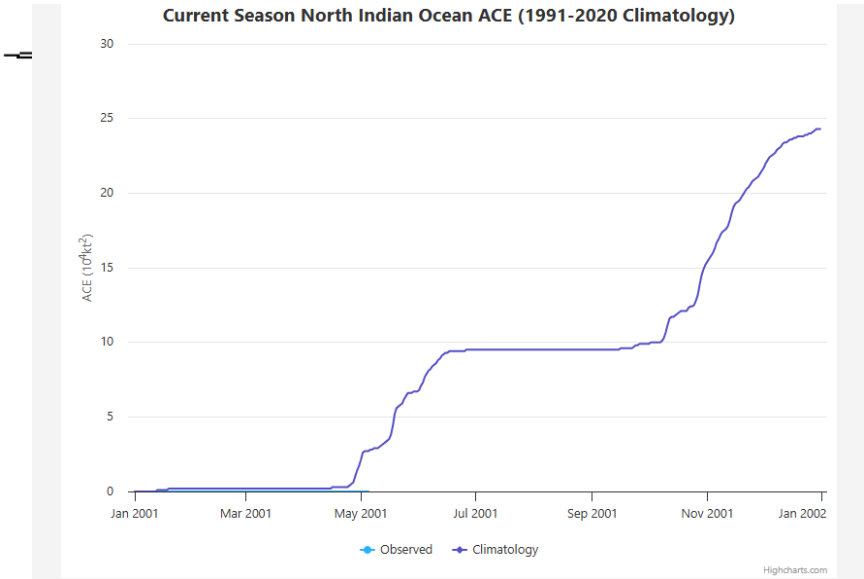
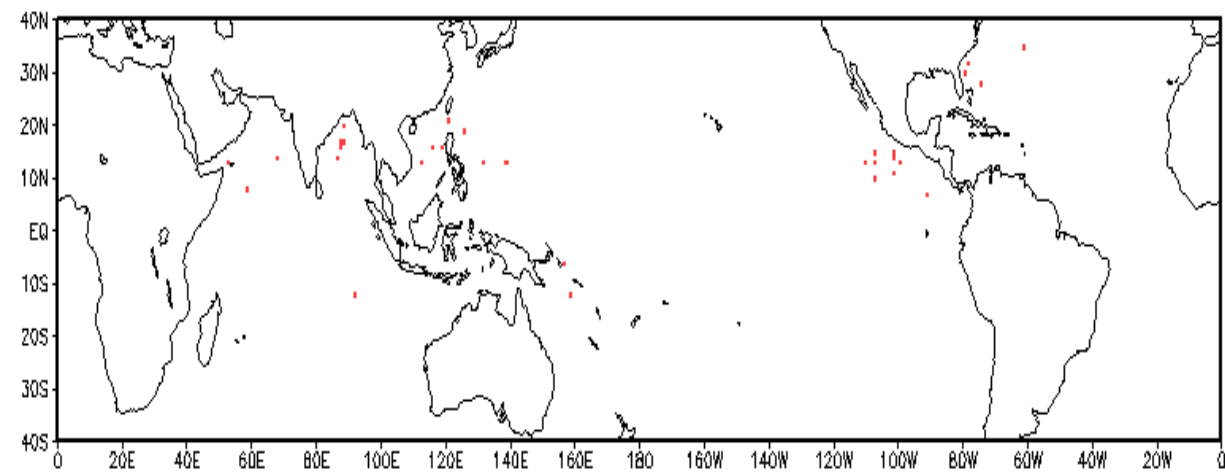
Tropical Cyclone (Reference Warning)

TC Climatological Genesis: Weeks 2+3

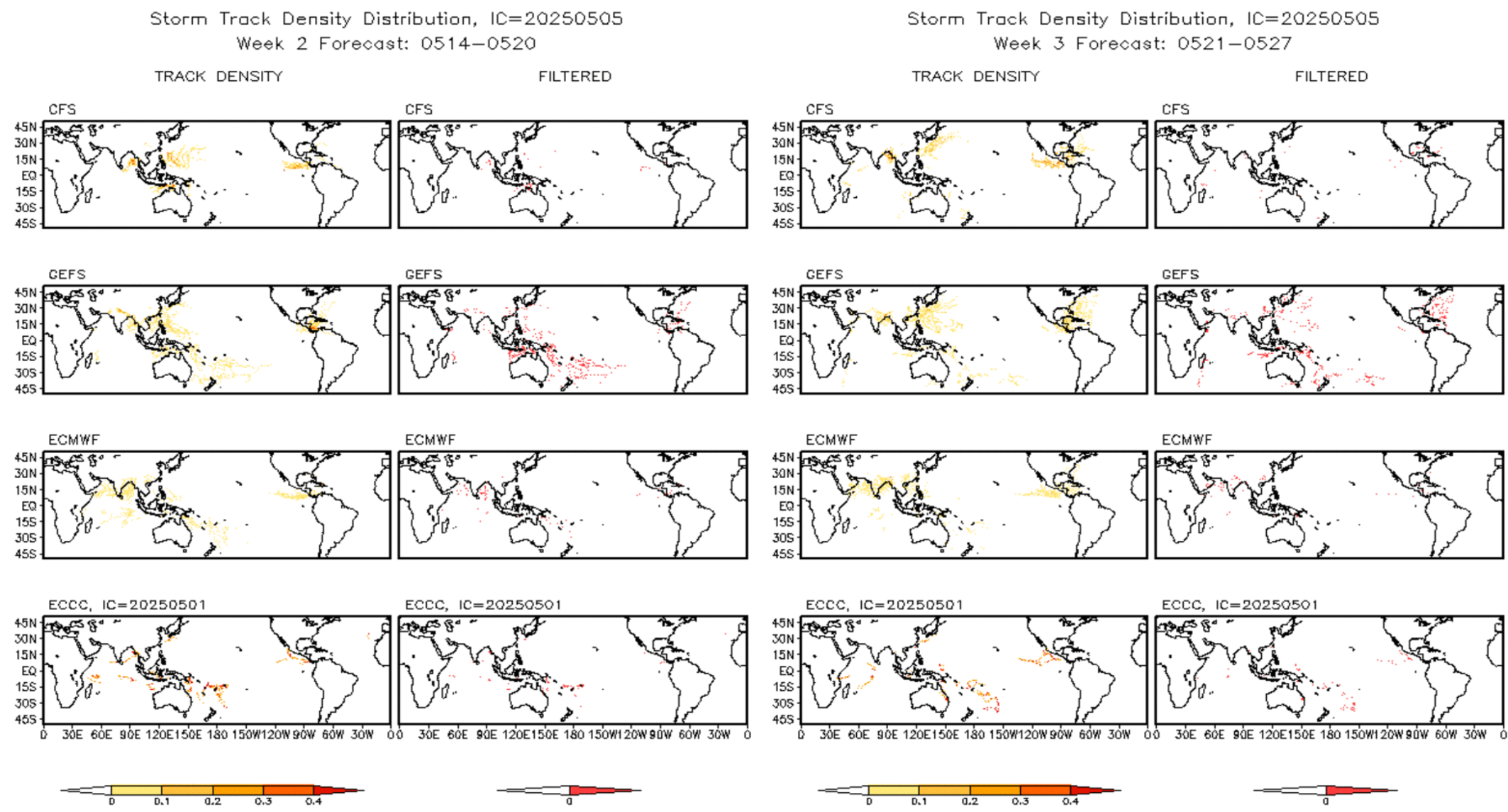
Observed TC Genesis, 1979–2021
7-day Period 0514 to 0520



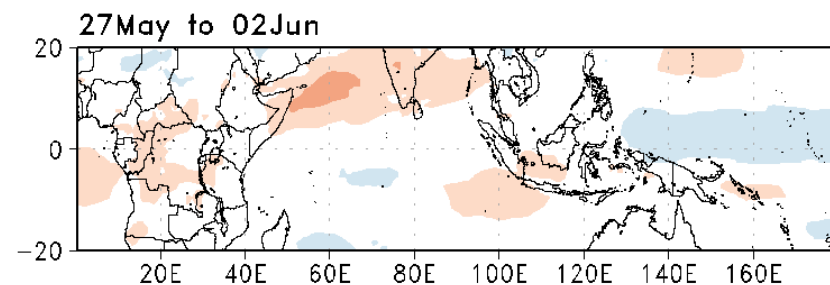
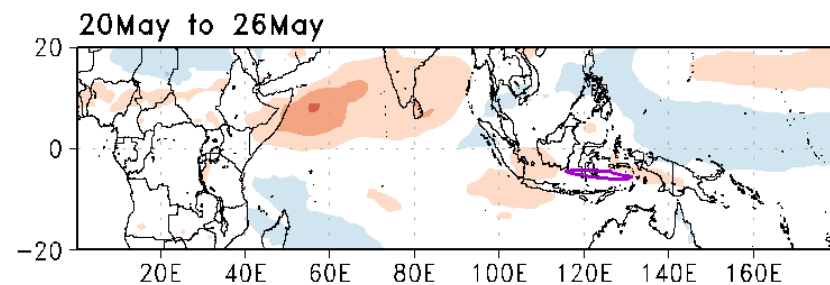
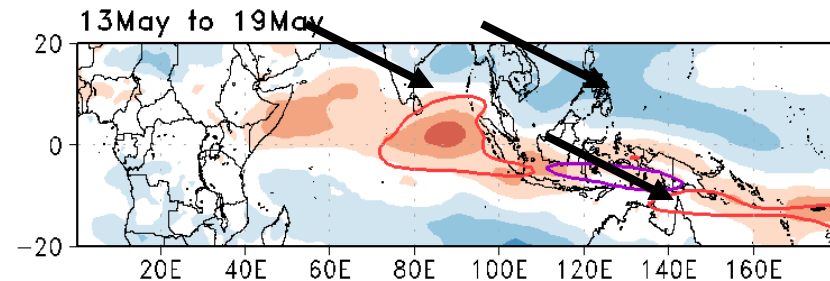
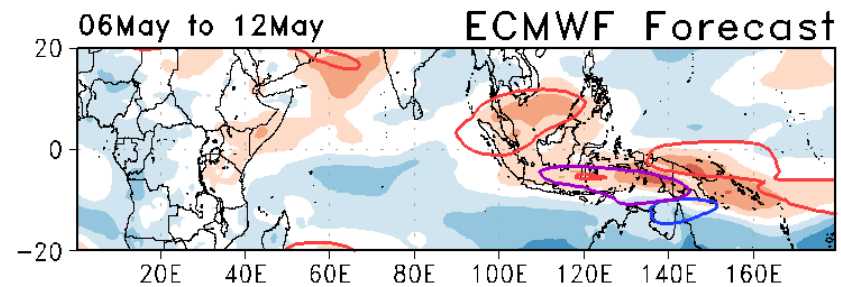
Observed TC Genesis, 1979–2021
7-day Period 0521 to 0527



Multi-Model TC Track Densities: Weeks 2+3

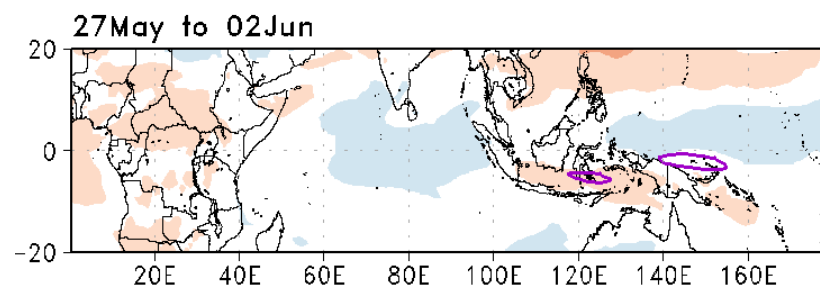
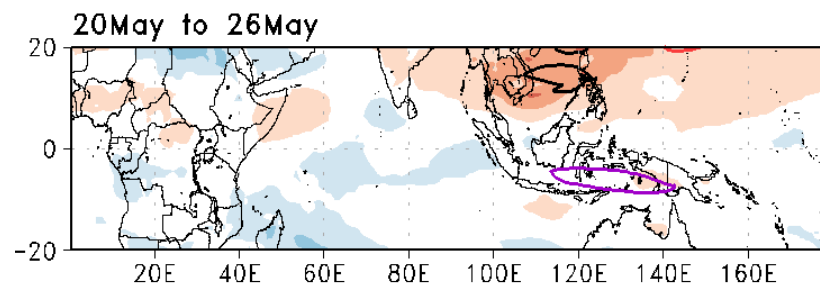
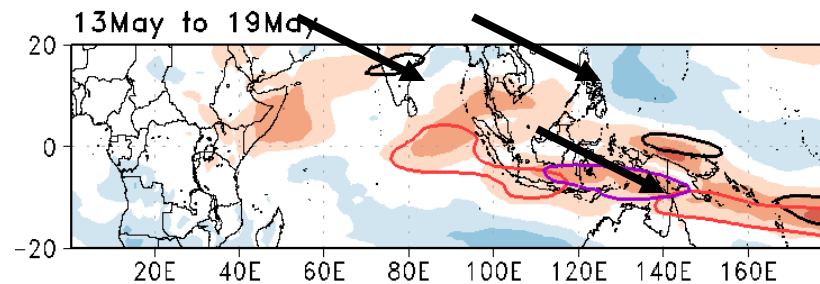
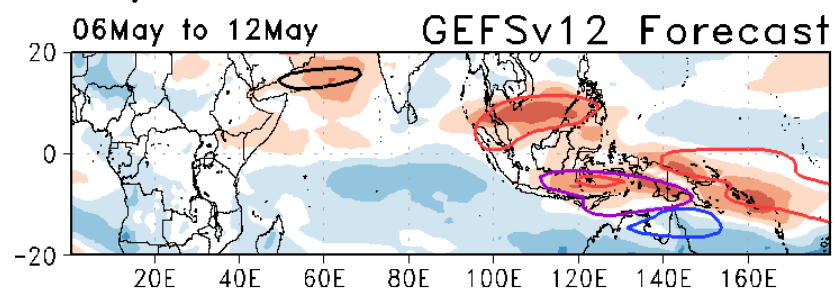


7-Day Means



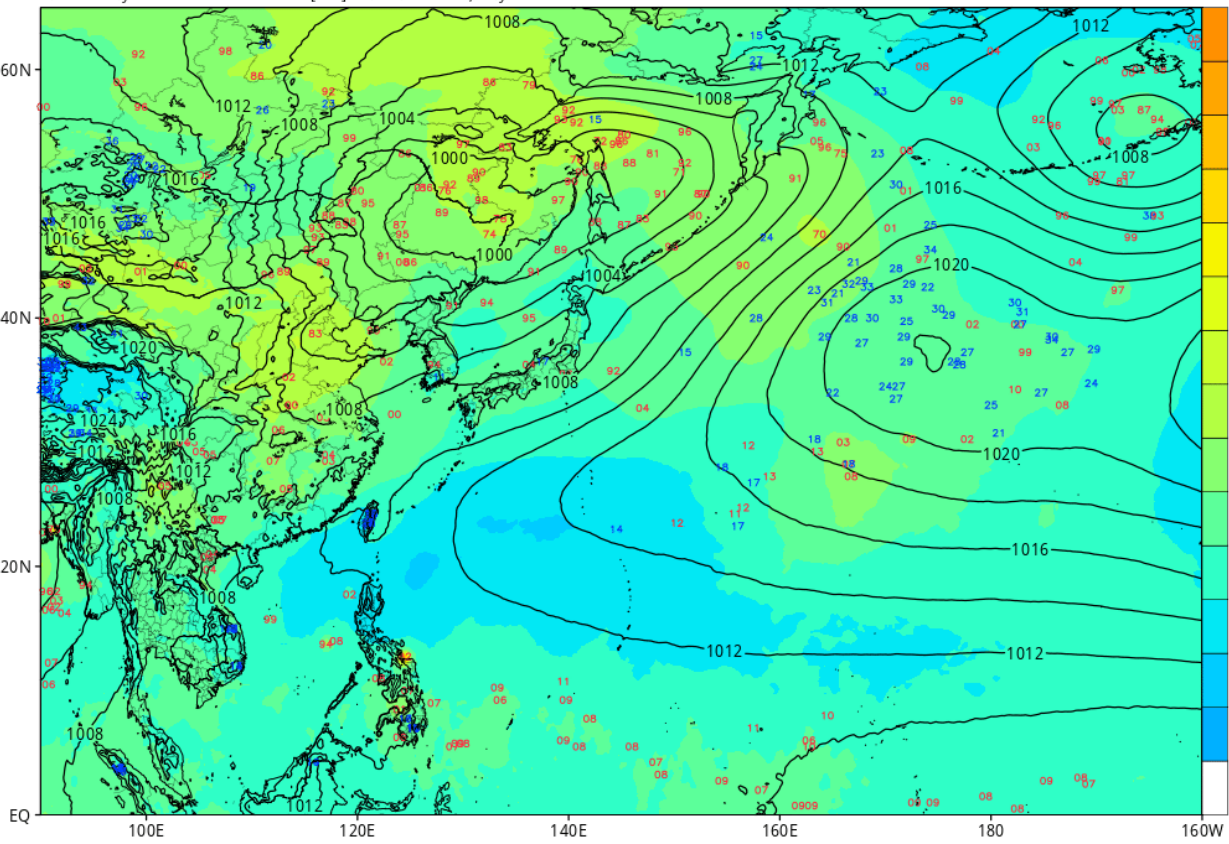
— MJO — Kelvin*2
— Low — ER
Contours at 2, 6 m s⁻¹

7-Day Means

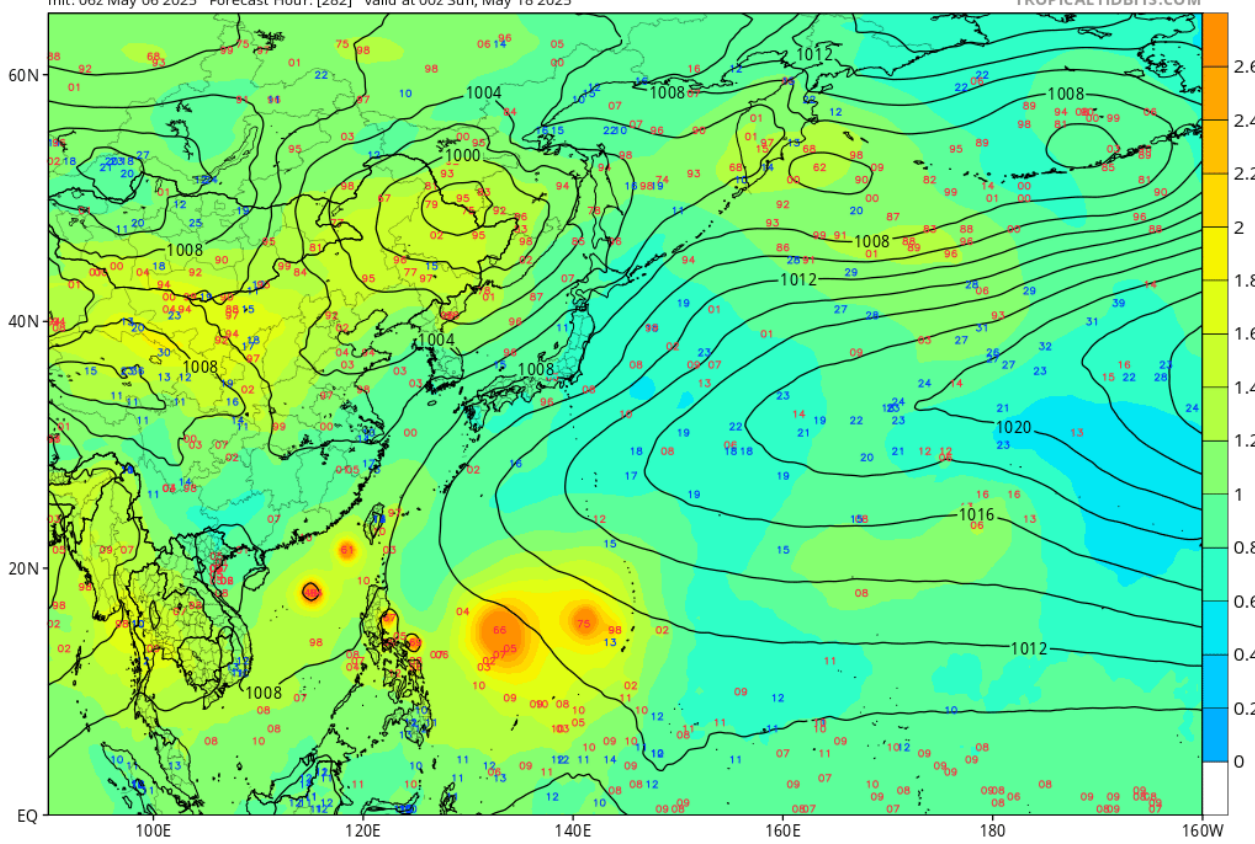


— MJO — Kelvin*2
— Low — ER
Contours at 2, 6 m s⁻¹

EPS Mean MSLP (mb), Ensemble Member Pressure Centers (Lows: red | Highs: blue), & Normalized Spread (σ)
Init: 00z May 06 2025 Forecast Hour: [288] valid at 00z Sun, May 18 2025 TROPICALTIDBITS.COM

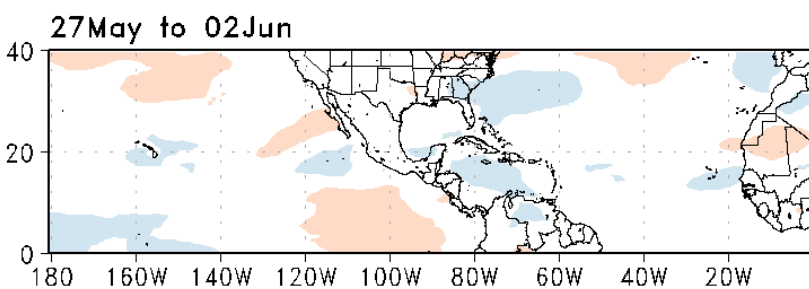
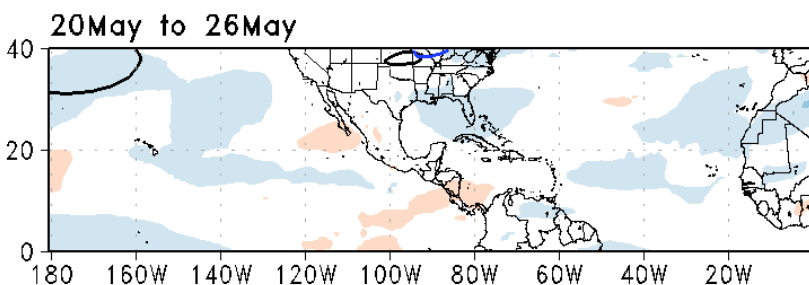
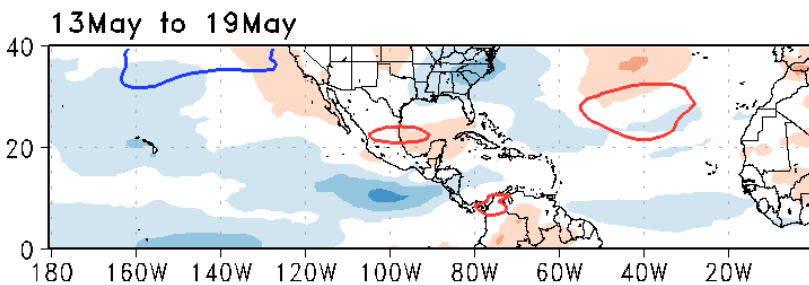
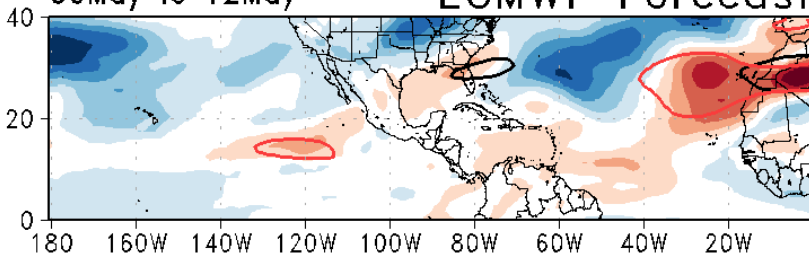


GEFS Mean MSLP (mb), Ensemble Member Pressure Centers (Lows: red | Highs: blue), & Normalized Spread (σ)
Init: 06z May 06 2025 Forecast Hour: [282] valid at 00z Sun, May 18 2025 TROPICALTIDBITS.COM



-Day Means

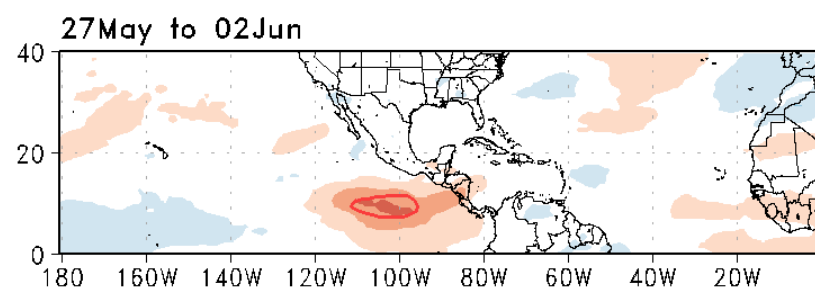
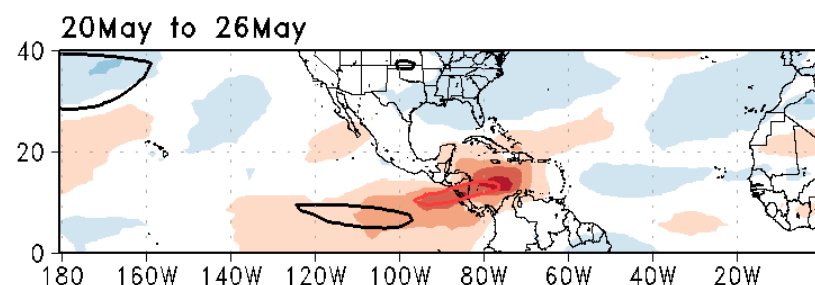
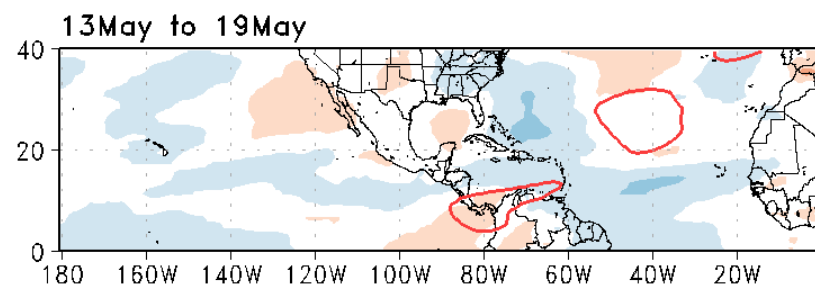
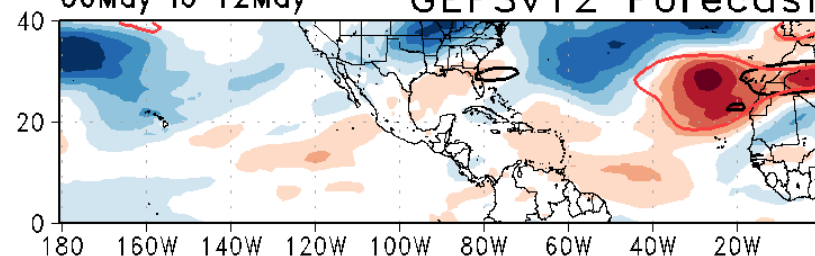
06May to 12May ECMWF Forecast



— MJO — Kelvin*2
— Low — ER
Contours at 2, 6 m s⁻¹

-Day Means

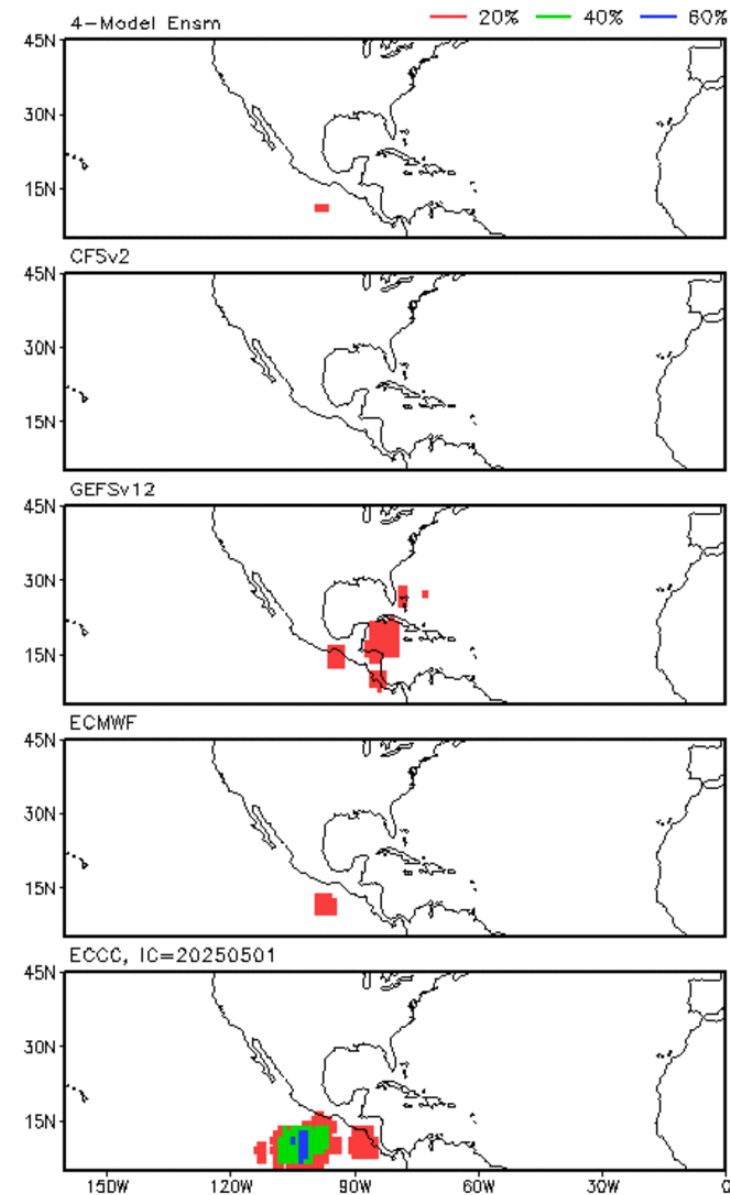
06May to 12May GEFSv12 Forecast



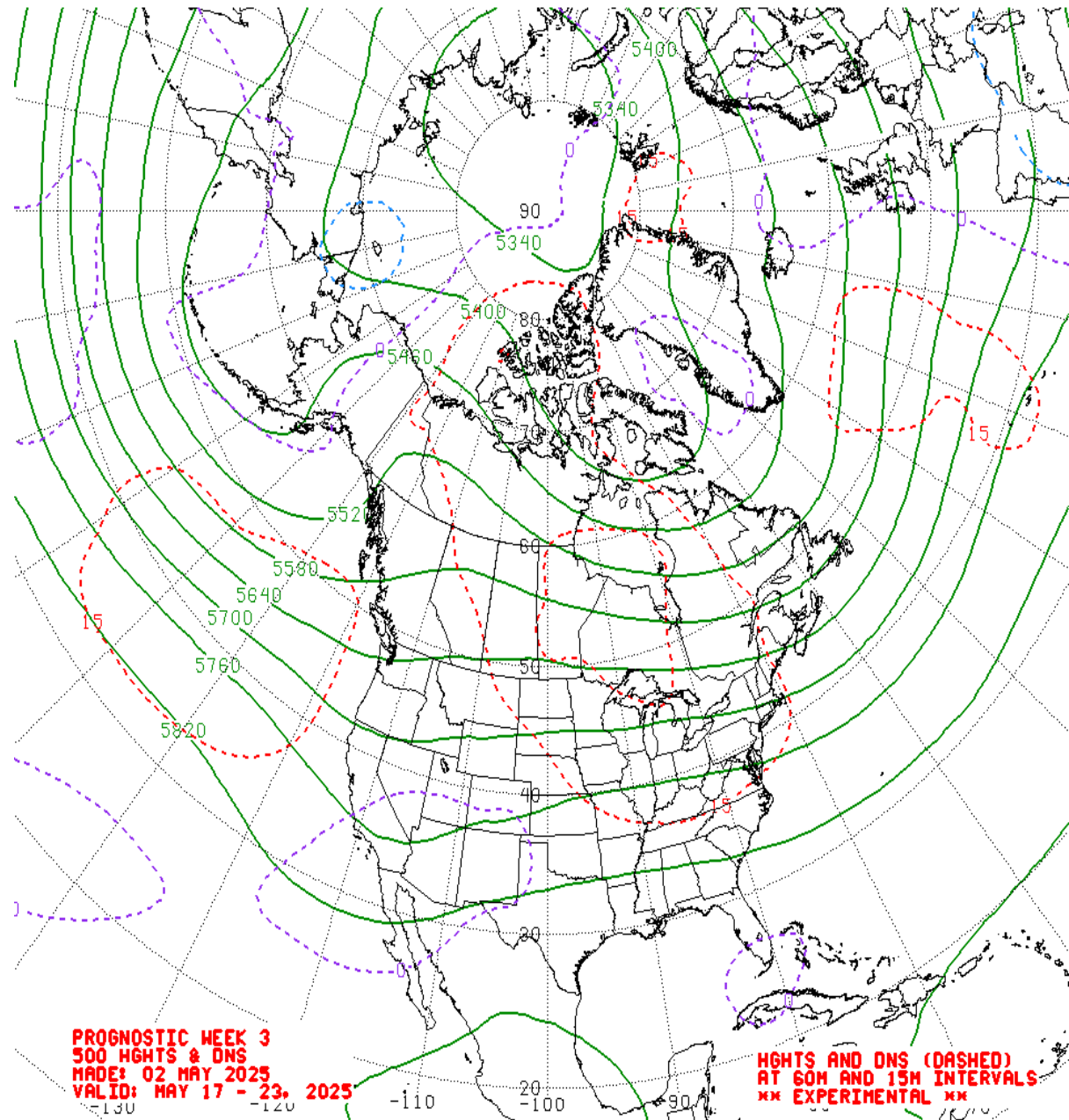
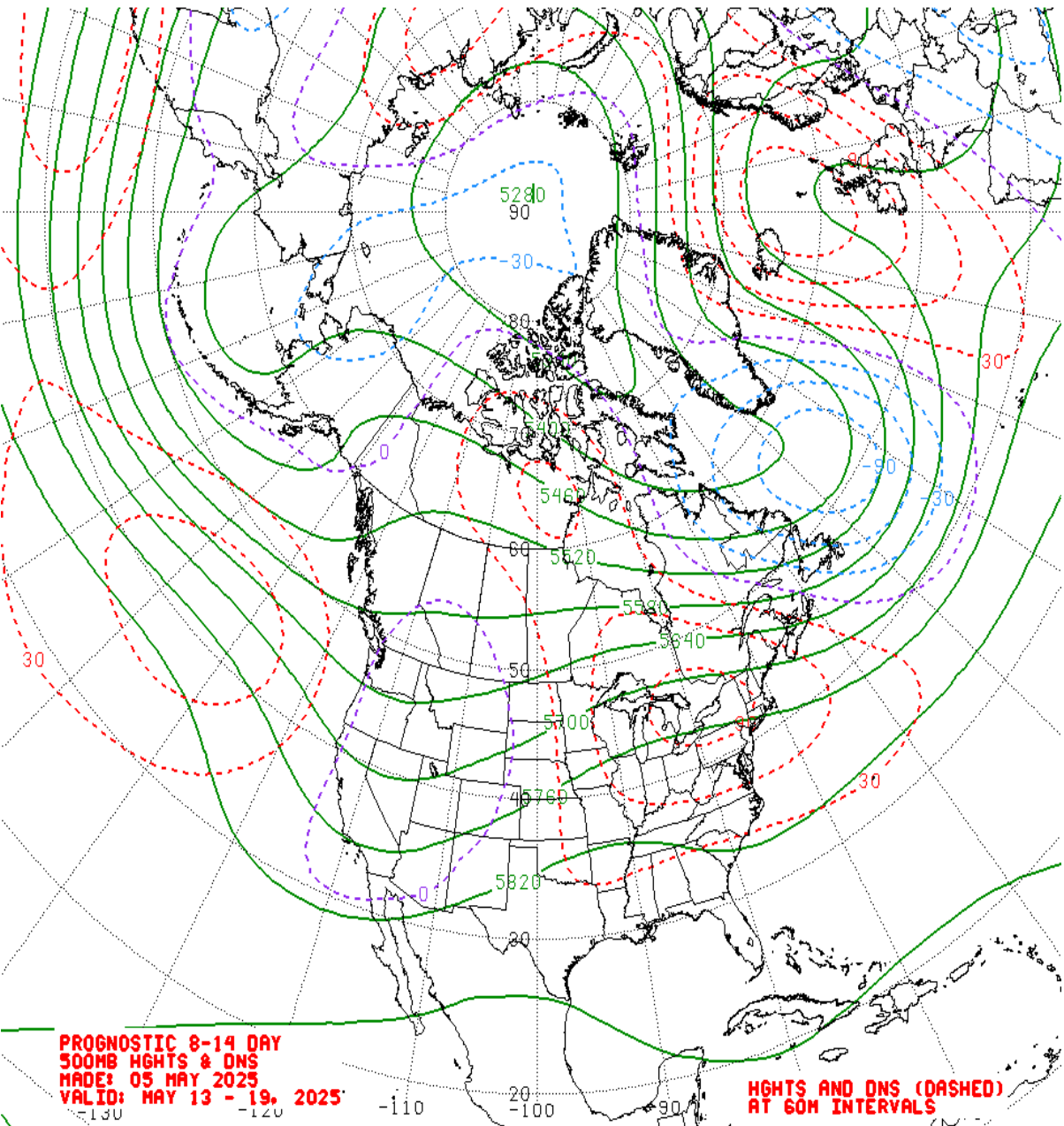
— MJO — Kelvin*2
— Low — ER
Contours at 2, 6 m s⁻¹

Storm Track Probabilities, IC=20250505

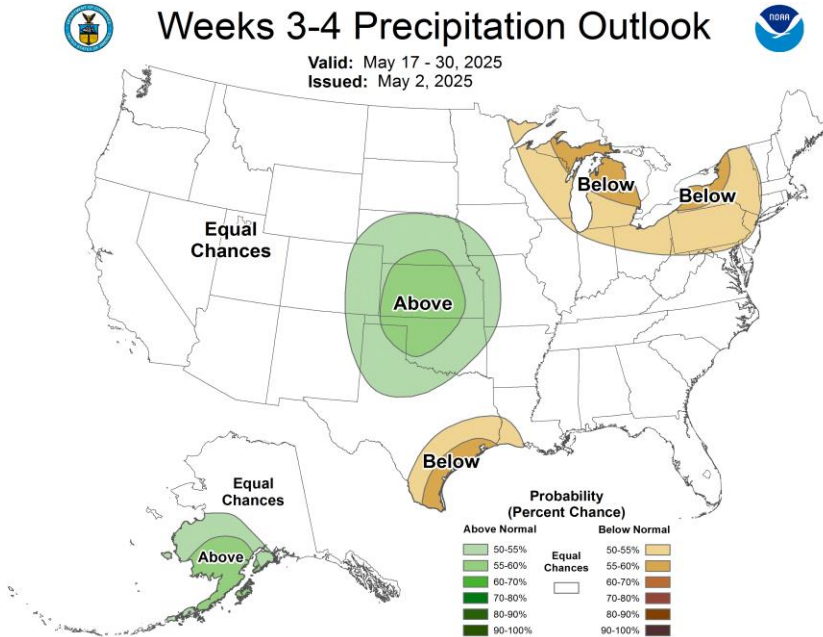
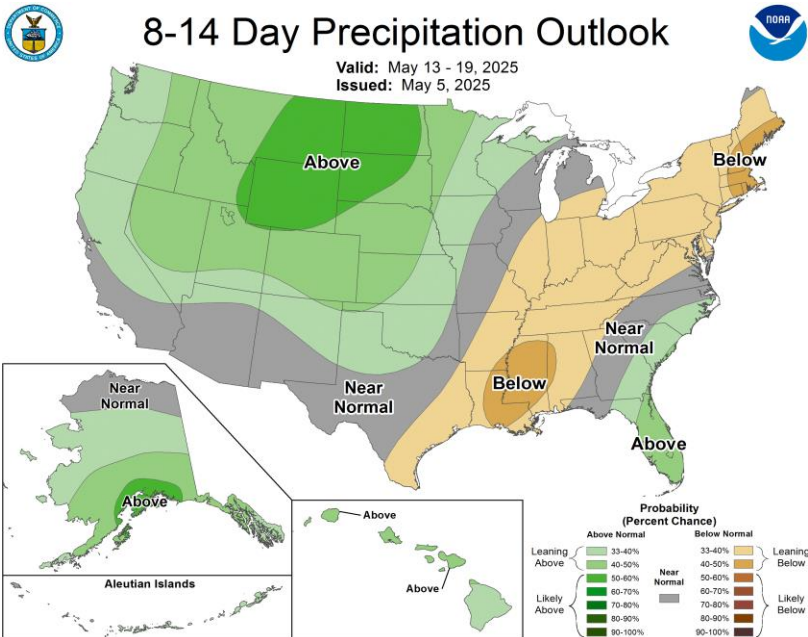
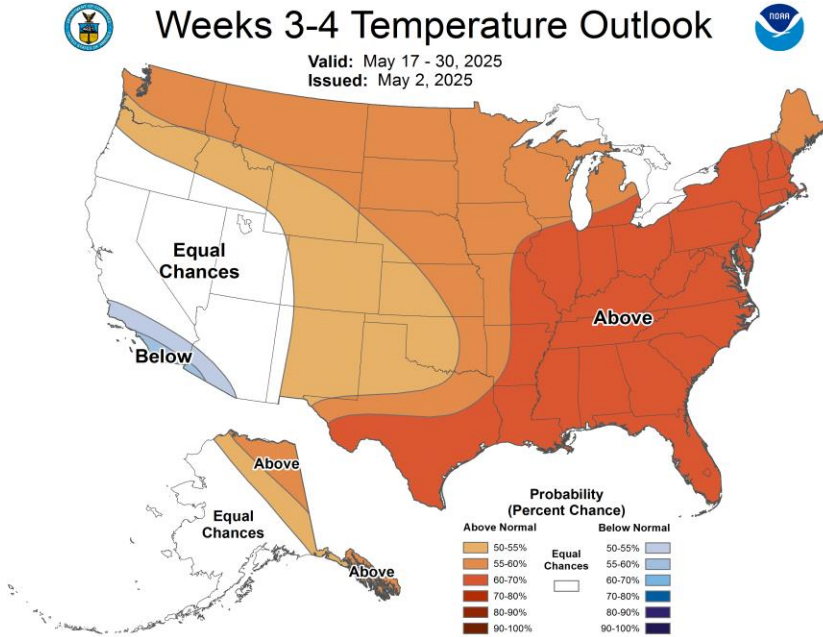
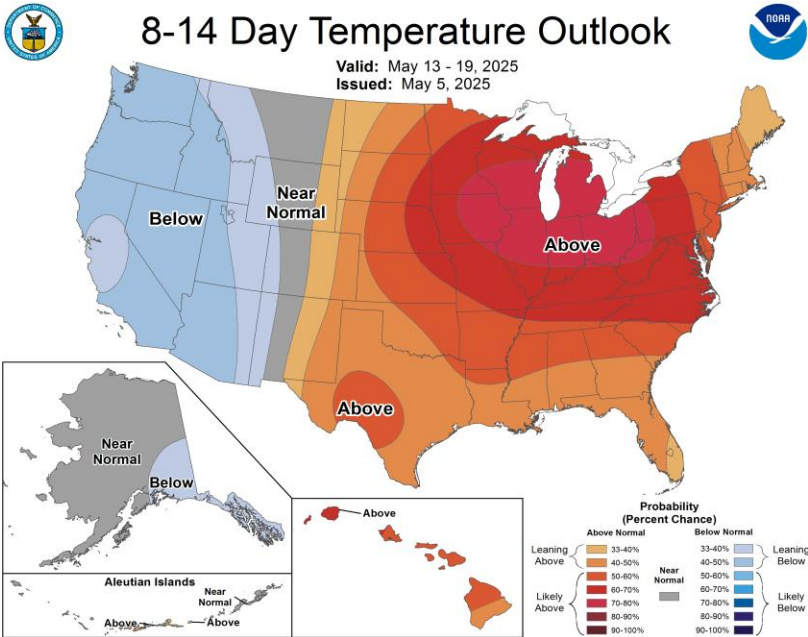
Week 3: 0521 - 0527



Mean 500-hPa Height Anomaly Forecasts: Weeks 2+3



Official Temperature & Precipitation Forecasts:



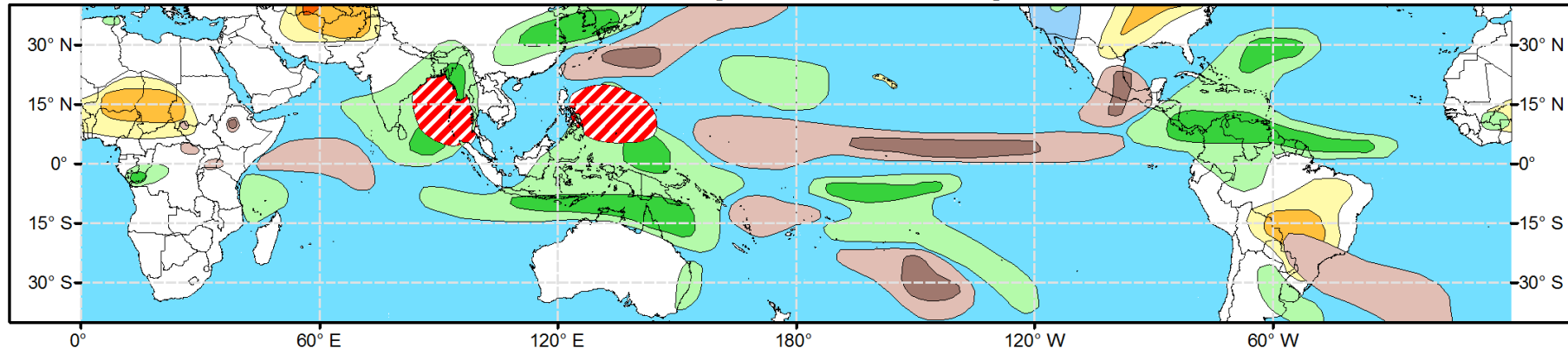


Global Tropics Hazards Outlook

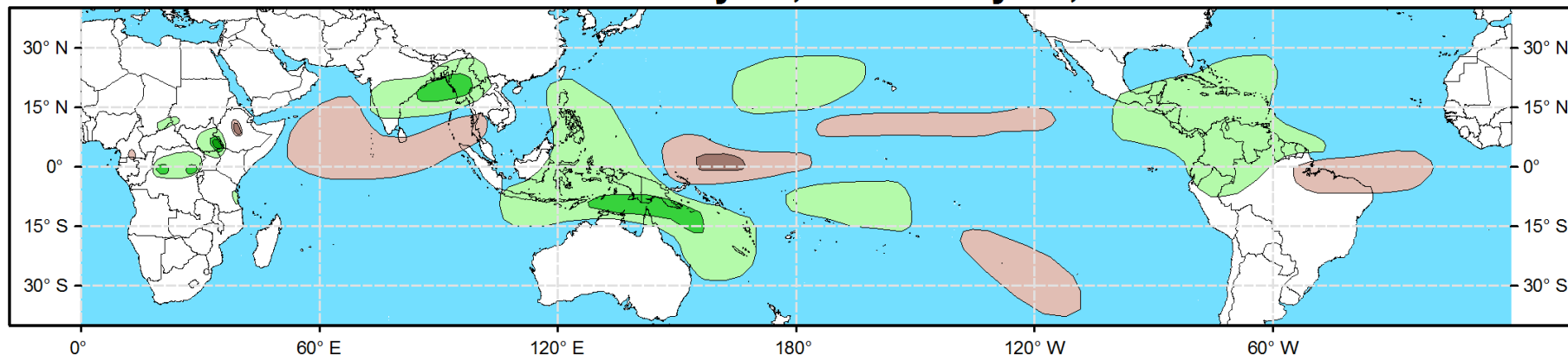
Climate Prediction Center



Week 2 - Valid: May 14, 2025 - May 20, 2025



Week 3 - Valid: May 21, 2025 - May 27, 2025



**Tropical Cyclone (TC)
Formation Probability**



>20% >40% >60%

*Tropical Depression (TD)
or greater strength*

**Above-Average
Rainfall Probability**



>50% >65% >80%

*Weekly total rainfall in the
Upper third of the historical range*

**Below-Average
Rainfall Probability**



>50% >65% >80%

*Weekly total rainfall in the
Lower third of the historical range*

**Above-Average
Temperatures Probability**



>50% >65% >80%

*7-day max temperatures in the
Upper third of the historical range*

**Below-Average
Temperatures Probability**



>50% >65% >80%

*7-day min temperatures in the
Lower third of the historical range*

Issued: 05/06/2025

Forecaster: Novella

**This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only.
Consult your local responsible forecast agency.**